Approved for use through 10/31/2002. 8MB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

COMPILE IF Known

Compile if Known

Application Number IO 004 539

Filling Dat 004 23 2001

First Named Inv. ntor George C. Zauris

(use as many sheets as necessary)

of

Sheet

Art Unit

**Examiner Name** 

**Attorney Docket Number** 

156,0170

<u> </u>			U.S. PAT	ENT DOCUMENTS	
Examiner (		Document Number  Number- Kind Code <sup>2</sup> (if known	Publication Date	Name of Patentee or Applicant of Cited Document	
W/		US-2,477,000		Osborne	page to, line 18
.0.		US- 4, 205, 122 US- 4, 216, 281 US- 4, 345, 013 US- 4, 363, 856 US- 4, 367, 271 US- 4, 387, 144	08-05-1980 01-13-1981 06-22-1982 12-14-1982 01-84-1983 06-07-1983	Clegg etal. Yonnezu etal. Waterhouse Hesegawa etal. McCallum etal.	page 2, fine 27 Ange 3, line 8 Page 5, line 3 Page 21, line 26 Page 4, line 12 Page 4, line 27 Page 4, line 15
	-	us- 4,529,677 us- 4,908,282 us- 5,076,826 us- 5,091,275	06-11-1885 63-13-1990 12-31-1991 02-25-1992		page 4 line 25 page 11 line 3 page 20, line 5
J		US- US- US- US- US- US-			
		US- US-			

	10112	<u> EIGN PATENT D</u>	OCOMEM 2		
Examiner Cite Initials No.1	Foreign Patent Document  Country Code 3 - Number 4 - Kind Code 4 (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6
684	TP 55053065 JP 55091564 JP 55146872 TP 67:147154	07-11-1980	Japan Storage Japan Storage Hitachi Maxwell Fuji Kerox O Ud	see attached English - language? abstracts of	
		1997	Minosta Co. Ltd Matsushita Lusick et al.	these publish applications (ubstracts	Ēď

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

-

Examiner

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)

6.1	Approved for use through 10/31/2002, OMB 0651-0031
•	U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Unde 🕰	Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB
	ember.
المالة المرازي	

MFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

Suggitute for form 1449A/PTO

JUN 18

Complete if Known				
Application Numb r	10/004. 53374.			
Filing Date	OCT. 22 8650 (1794110)			
First Nam d Inventor	GENTLE C. ZOGOS "O			
Art Unit	0 0 0			
Examiner Name				
Attorney Docket Number	1510,0170			

	, , , , , , , , , , , , , , , , , , ,	U.S. PATE	ENT DOCUMENTS		
Examiner Cite Initials No.1	Document Number Number- Kind Code <sup>2</sup> (if known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	US. 2117371	05-17-1938	Slaytes	Column 1, line 12 ets	Jey_
1.0. T.	US- 2, 311, 613	02-16-1943	Slayter	col 1, line 1-12	*
	US. 2,339,431	01-18-1944	Slavter	col. 1, lines 23 et seq.	
	US. 2, 484, 787	10-11-1949	Grant	colil, line 35 et seg	
	us 2,734,095	02-07-1956	mears et al.	cola, line 6 et sey.	]
l	US- 3,085,126	04-09-1963	Labino	Cd. I. lines 42 essep	
ll_	US- 3, 339, 777	08-a9-1967	Irwin et al	COL 1, lines 35.56	
	US- 3,608,166	09-28-1971	Gruget	Abstract	]
	US- 4,216,280	08-05-1986		Abstract	ļ
	US- 4,359,511	11-16-1982	Strzenoko	Abstract	
L /	US- 4, 373, 015	02-08-1983	Peters et al	col. 1, lives 24-39	
1	US- 4,465,748	08-14-1984	Hassis	Abstract	
	US- 4,529,677	07-16-1985	Bodendort	Abstract	
	US- 4,648,177		Uba et al.	COLD, lines 41 etsays	) examples
	US- 5,009,971		Johnson et al.	Abstract	· ·
	US- 5, 075, 184		Tanaka et al.	Abstract	
	US-5,180.647		Rowland et al	Abstruct	
	US-6,071,641	06-06-3000	Zauris	Abstract	
	US- 6,071,651		Forte etal	Alostraci	J
	US- 10 108.879		Forte etal.	Abstract	
					,

		FORE	EIGN PATENT D	OCUMENTS		
Examiner Initials	Cite No. 1	Foreign Patent Document  Country Code 3 - Number 4 - Kind Code 4 (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6
						NH CE
					7,-1	TYFD

Examiner Date 04 Signature Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Indeerthes in the contract of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB into Intimiter.

orm 1449A/PTO

## ÖRMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

Complete if Known				
Application Number	10 004, 53 90371J			
Filing Date	001. 32, 2000 11/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1			
First Named Invent r	George C. Zaurdo			
Art Unit	0 0 W			
Examiner Name				
Attorney Docket Number	1560170			

		U.S. PATI	ENT DOCUMENTS	
Examiner Initials	Document Number Number - Kind Code <sup>2</sup> (if known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
7 X/V-	us. 4,143,441	11-07-2000	Zauris etal.	Abstract
0	 US-		0	
	 us-			
	 US-		· · · · · · · · · · · · · · · · · · ·	
	 US-			annessa sa na na mangana anna sa anna anna anna anna anna
	 US-	-,	a qua magain anns, angainngaine ainm anns ann an mhiornaigh polit, an ann ann aith feirin bhliochail dheach i the	
ļ	 US-			manuscular anni cultura (como como como como como como como com
	 US-			
	 US-			
	 US-			
	US-			

		FORE	EIGN PATENT D	OCUMENTS		
Examiner Initials		Foreign Patent Document  Country Code 3 - Number 4 - Kind Code 5 (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6
	4					
					2	
					1	_
					0 =	É
				Min partic   40 May   40 M.   1 Cabina Sa   1 Divini 1944 1944 1944 1944 1944	<u> </u>	
						17
		t thank, many age - paying the first on the bandwith the traction to be the control to be a paying the first on the bandwith the first of the first		and the second section of the second section section section sections and second section sections are sections.		~
						迎
					00	ب

Examiner Signature	Mad	Date Considered	6/04



<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.usgto.gov">www.usgto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

OIP E VOS	
INN 1 8 JOHN S	1
FRENTE TRADEMARK	ı

PTO/SB/08B (10-01)

Approved fo through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB

control number.

Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of Sheet

Complete if Known				
Applicati n Numb r	10/004.539			
Filing Date	Oct. 22 200 71,			
First Nam d Inv ntor	George C. Zabrigion			
Group Art Unit				
Examiner Name	्र स्			
Attomey Docket Number	156.0170			

Examiner Cite Include name of the author (in CAPITAL LETTERS), tills of the article (when appropriate), tills of the Item (book, magazine, journal, serial, symposium, catalog, act, older, page (a), page (a), volume-issue number(a),		 OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Handbook"- published by ASM International, 1991		Item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue	T2
	$\sqrt{\lambda_{-}}$	Ceramic and Glass - vol. 4 of the "Engineered Materials	
	Ja.	 Handbook"-published by ASM International, 1991	
	April to the same and all the con-	 The state of the s	
	nga ngara samana garawa na ara-taya		-
	100 100 00 00 00 00 00 00 00 00 00 00 00		
MOCH 7182: 06			
MOCH THE			í C
		100x	1775
Examiner Signature Considered Considered			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE

of

Substitute for form 1449A/PTO

Sheet

STATEMENT BY APPLICANT

(use as many sheets as necessary)

C mplet if Known 10/004 **Application Number** Filing Date First Named Inventor George Art Unit Examiner Name 156,0170 Attorney Docket Number

		U.S. PATE	NT DOCUMENTS	
Examiner Initials	 Document Number  Number - Kind Code <sup>2</sup> (If known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
am	 us-2,117,371	05/1938	Slayter	
$II_{I}$	US- 2, 311, 613	02/1943	Slayter	
	 US- 2, 339 431	61/1944	Slayter	
	 US. 7, 477,000	07/1949	Dsborne	
	 us 2,484,787	10/1949	Grant	and the same of th
	 US. 2, 734, 095	02/1956	mears et al.	
	 us. 3, 085, 126		Labino	
	 us. 3, 338, 777	08/1967	Irwin et al.	
.	 US 3, 608, 166.	09/1971	Gruget	<u> </u>
	US- 4, 205, 122	05/1980	miura etal.	
	 US. 4,216,280	08/1980		
	 Us. 4, 216, 281	08/1980	1 O'Kell et at	
	 US. 4,245,013	01/1981	Clegaetal.	
	US- 4,336,314	06/1982	Yonneru etal	
	 US. 4359,511	11/1982	strzensko	
	 US- 4363 856	5891/EI	Waterkouse	
	 US- 4, 367, 271	01/1983	Hasegawa etal	
	 US- 4, 373,015	02/1983	Peters et al.	
1,1	 US- 4, 387, 144		mccallin et al.	
W	 US- 4, 445, 748	08/1984	Harris	

		FORE	IGN PA	TENT D	OCUMENTS		
Examiner Initials		Foreign Patent Document  Country Code 3 "Number 4". Kind Code 5" (if known)		tion Date D-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
1844		JP 55053065 JP 55091564	-0.4	1980			
		JP 55146872   JP 07-147154	- C	980 199 <i>5</i>			
		76 09-92253 A	04/	1997			\
An	L	wo 98/17759	D3.	1998		CALLED TAKE MANUAL AND	

Examiner Considered Signature

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitut	NFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary) Sheet 2 of 3	CI	nplet if Known				
				Application Number	10/004,539		
INFC	RMATION	DIS	CLOSURE	Filing Date	10/ 22/2001		
STA	TEMENT B	Y A	PPLICANT	First Named Inventor	George C. Zavris	<u></u>	
				Art Unit	1745		
	use as many shee	ts as	necessary)	Examiner Name			
Sheet	2	of	3	Attorney Docket Number	156 0170		

		U.S. PATE	ENT DOCUMENTS	Ċ
Examiner C Initials N	Cite Document Number  lo. 1 Number - Kind Code <sup>2</sup> (if known	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
afri	US. 4,527,876 US. 4,529,677 US. 4,648,177 US. 4,908,282 US. 5,009,971 US. 5,076,826 US. 5,076,826 US. 5,071,475 US. 6,180,647 US. 6,108,879 US. 6,193,441	06   1985 07   1985 03   1987 03   1990 04   1991 12   1991 02   1992 01   1993 06   2660 08   2000 11   2000		
L. C. Y	US- US- US- US- US- US- US- US-			

	FOREIGN PATENT DOCUMENTS								
			Publication Date Name of Patentee or Applicant of Cited Docume		Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear				
11111113	140.	Country Code 3 -Number 4 - Kind Code 5 (if known)	MM-DD-YYYY		or Relevant Figures Appear				
		rador ( West Products ) / and ( as a product radius )		and the state of t					
		man commence of the contract o		e , a je kalasteksom om entre entre om derekskih od skaliti					
		time the firm and the comment of the state o		, the later of the process and an expension of the first decision of the contract of the contr	ALADAMAN AND AND AND AND AND AND AND AND AND A				
				entre the control of the state					
	. '			ne tha see end to the end of					

			11						
Examiner Signature		rela	1	4		Date Considered	6/0	) (4	
*EVAMINED:	Initial if	rafarana sansidarad	whathar a	as not citatio	a ia ia aantarmaa		Deau lie	no theoreth citation	if no

<sup>\*</sup>EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional).

2 See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04.

3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

6 Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement. The form is a translation.

Examiner

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB in number. control number

		•		Cor	mpl t if Kn wn
	or form 1449B/PTO		0.001105	Application Number	10/004, 539
INFOR	RMATION	DIS	CLOSURE	Filing Date	10/22/2001
CTAT	EMENT R	VΛ	PPLICANT	First Named Inventor	George C. Zavris
SIAII	CIAICIA I D	1 7	FILIOAN	Group Art Unit	1745
	(use as many sh	eets a	s necessary)	Examiner Name	
Sheet	3	of	3	Attorney Docket Number	156,0170

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s) publisher, city and/or country where published	Τ2
	1	"Engineered materials Handbook".	C 1700
		published by Asm International, 1991.	
		and the second of the second o	
•	 		
		The second secon	
			•

Considered Signature \*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with pext communication to applicant.

Date

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.